

LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in application:

Listing of Claims:

Claims 1-43 (Previously Canceled)

44. (Previously Presented) An orthotic foot support device for a human foot, comprising:
a foot support device having a thin flexible stretch-resistant sole member of uniform thickness having a shape matching less than the entire outline of a sole of a wearer's foot to which the device is to be applied and sized to cover only a portion of the wearer's sole; and
an adhesive layer on said sole member for securely adhering said device directly to an outer skin tissue on the sole of the foot, and at least one protective cover removably disposed over said adhesive layer which, when removed, exposes said adhesive layer;

said stretch-resistant sole member sufficiently stretch-resistant to restrict extension and stretching of an outer skin tissue on the sole of a foot, when adhered thereto, and

said adhesive layer of sufficient adhesion to maintain said stretch-resistant sole member in adhesive engagement with an outer skin tissue on the sole of the foot, such that tension forces applied to a plantar fascia are shared with an outer skin tissue, said adhesive layer, and said sole member to restrict extension and stretching of an outer skin tissue of a sole of a wearer's foot, whereby preventing excessive tensile stress in a plantar fascia.

45. (Previously Presented) The device according to claim 44, wherein

said sole member has a ratio of elongation to tensile strength (lb/in-width) that is less than 0.9 to provide a balanced combination of strength and resistance to elongation

46. (Previously Presented) The device according to claim 45, wherein

said stretch-resistant sole member is formed of a single layer of fabric material having a uniform thickness of less than 30 mils (0.762 mm).

47. (Previously Presented) The device according to claim 44, wherein
said stretch-resistant sole member exhibits than 15% elongation when subjected to a
tensile load (lb/in-width) approximately equivalent to 25 pounds/inch in accordance to ASTM
D3759.

48. (Previously Presented) The device according to claim 44, further comprising:
a thin flexible arch strap having opposed ends extending laterally outward from opposite
sides of said stretch-resistant sole member;
an adhesive layer on said arch strap for adhering said arch strap directly to an outer skin
tissue on a side or top of an arch of a foot, and a protective cover removably disposed over said
adhesive layer which, when removed, exposes said adhesive layer;
said arch strap, when adhered to an outer skin tissue on a side or top of an arch of a foot,
provides a further means to maintain said sole member in position on a sole of a foot of a wearer.

49. (Previously Presented) The device according to claim 48, wherein
said arch strap is secured to said device by an adhesive.

50. (Previously Presented) The device according to claim 48, wherein
said arch strap is integrally formed with said device.

51. (Previously Presented) The device according to claim 44, further comprising:
at least one thin flexible heel strap extending rearwardly from said sole member of said
device;
an adhesive layer on said heel strap for adhering said heel strap directly to an outer skin
tissue on a back of a heel of a foot, and a protective cover removably disposed over said
adhesive layer which, when removed, exposes said adhesive layer;
said heel strap, when adhered to an outer skin tissue of a heel of a foot provides a further
means to maintain the position of said sole member on a sole of a foot.

52. (Previously Presented) The device according to claim 51, wherein
said heel strap is integrally formed with said device.

53. (Previously Presented) The device according to claim 44, further comprising:

a thin flexible front strap having opposed ends extending laterally outward from opposite sides of said stretch-resistant sole member in a position to at least partially overlap a top of a foot above a ball portion of a foot;

an adhesive layer on said front strap for adhering said front strap directly to an outer skin tissue on a side and a top of a ball portion of a foot, and a protective cover removably disposed over said adhesive layer which, when removed, exposes said adhesive layer;

said front strap, when adhered to an outer skin tissue on a side and a top of a ball portion of a foot provides a further means to maintain said sole member in position on the sole of a wearer's foot.

54. (Previously Presented) The device according to claim 53, wherein
said front strap is integrally formed with said device.

55. (Previously Presented) The device according to claim 44 wherein
said sole member is comprised of a single woven fabric layer, an adhesive layer and a protective cover layer removeably disposed on said adhesive layer.

56. (Amended) An orthotic foot support device for a human foot, comprising:

a foot support device having a thin flexible substantially stretch-resistant sole member sized and shaped to engage an outer skin surface of at least a portion of a sole an individual's foot to which said the device is to be applied and an adhesive layer on said sole member for adhering said sole member directly to an outer skin surface of a sole of a foot; and

at least one thin flexible strap or tab having an end extending outward from said sole member beyond a sole of a foot, and an adhesive layer on said strap or tab for adhering said strap or tab directly to an outer skin surface on a side or a top of a foot, wherein said strap or tab adhered to an outer skin surface of a foot provides further means for maintaining said sole member in adhesive engagement with the skin tissue on a sole of a foot; said sole member is sufficiently stretch-resistant to restrict extension and stretching of an outer skin surface of a sole when adhered thereto and said adhesive layer on said sole member is of sufficient adhesion to

maintain said sole member on an outer skin surface of a sole of a foot so that tension forces applied to a plantar fascia are shared with said outer skin surface, said adhesive layer, and said stretch resistant sole member to restrict stretching and extension of an outer skin tissue on a sole of a foot; whereby excessive or damaging tensile stress in a plantar fascia is prevented.

57. (Previously Presented) The device according to claim 56, wherein

 said at least one thin flexible strap or tab comprises an arch strap having at least one end extending laterally outward from a side of said sole member in a position to engage a side and at least a portion of a top of an arch of a foot;

 said arch strap, when adhered to an outer skin surface on the sides a side and a top of a arch of a foot, provides a further means to maintain said sole member in an adhesively engaged position with a sole of a foot.

58. (Previously Presented) The device according to claim 56, wherein

 said at least one thin flexible strap or tab comprises at least one heel strap or heel tab extending from said sole engaging surface of said device, and an adhesive layer on said heel strap or heel tab for adhering said heel strap or heel tab directly to an outer skin surface on a heel of a foot;

 said heel strap or heel tab, when adhered to an outer skin surface of a heel of a foot providing provides further means for maintaining said sole member in adhesive engagement with a sole of a foot.

59. (Previously Presented) The device according to claim 56, wherein

 said at least one thin flexible strap or tab comprises a front strap having at least one end extending laterally outward from a side of said stretch-resistant sole member in a position to at least partially overlap a top of a foot above a ball portion of a foot, and an adhesive layer on said front strap for adhering said front strap directly to an outer skin surface surfaces on a side and a top of a ball portion of a foot;

 said front strap, when adhered to an outer skin surface surfaces on a side and a top of a ball portion of a foot provides further means for maintaining said sole member in engagement with a sole of a foot.

60. (Previously Presented) A support device for a human foot, comprising:

a thin flexible foot support device of substantially uniform thickness having a stretch-resistant sole member sized and shaped to engage and to cover an outer skin surface on at least a portion a sole of a wearer's foot and extend along at least a portion a plantar fascia region of the foot, an adhesive layer on said sole member for adhering said sole member directly to an outer skin tissue on a sole of a wearer's foot, and a protective cover removably disposed over said adhesive layer which, when removed, exposes said adhesive layer; and

a thin flexible arch strap member having a mid portion and opposed ends, an adhesive layer on said arch strap, and a protective cover removably disposed over said adhesive layer which, when removed, exposes said adhesive layer, wherein said arch strap when adhered to a foot provides a further means for maintaining said sole member in engagement with a sole of a wearer's foot; whereby

said adhesive layer on said sole engaging surface is of sufficient adhesion to maintain said device in place on the outer skin surface on the sole of the foot and said stretch-resistant sole engaging surface is sufficiently stretch-resistant to restrict extension and stretching of the outer skin surface on the sole of the foot, when adhered thereto, so that tension forces applied to the a plantar fascia are shared with said outer skin surface, said adhesive layer and said sole engaging surface to restrict extension and stretching of a plantar fascia.

61. (Previously Presented) The support device according to claim 60, wherein

wherein said stretch-resistant sole member exhibits less than 15% elongation when subjected to a tensile load (lb/in-width) equivalent to 25 pounds/inch in accordance with test methods equivalent to ASTM D3759.

62. (Previously Presented) A method for restricting extension and stretching of the plantar fascia of a human foot, comprising the steps of:

providing a thin flexible device of substantially uniform thickness having a stretch-resistant sole member sized and shaped to be conformed to an outer skin tissue on at least a portion of a sole of a wearer's foot in a region of the foot from a heel of a foot to a distal end of the toes, excluding the region under the four smaller toes; and an adhesive layer on at least a

portion of said sole member for adhering said device to the outer skin tissue on the sole of a wearer's foot, said adhesive layer of sufficient adhesive strength to maintain said device in place on the outer skin tissue on the sole of the foot and said stretch-resistant sole engaging surface sufficiently stretch-resistant so as to restrict extension and stretching of the outer skin tissue when adhered thereto;

adhering said sole member to an outer skin tissue on a portion of a sole of a foot such that tension forces applied to the plantar fascia are shared with said device outer skin tissue, said adhesive layer and said sole member to restrict extension and stretching of an outer skin tissue on a sole of a foot, whereby; preventing excessive stress on a plantar fascia.

63. (Previously Presented) The method according to claim 62, comprising the further steps of:

adhering opposed ends of a thin flexible arch strap extending laterally outward from opposite sides of said stretch-resistant sole member to the outer skin tissue on the sides or top of an arch of a foot to provide a further means for maintaining said stretch resistant sole member in adhesive contact with a sole of a foot.

64. (Previously Presented) The method according to claim 63, wherein

said steps of adhering said arch strap include a preliminary step of adhering a midportion of said arch strap to an underside of said device, and thereafter

adhering said opposed ends of said arch strap to an outer skin tissue on the sides or top of an arch of a foot in a position to at least partially encircle a talus, a navicular, a cuneiform, or a cuboid region of a foot.

65. (Previously Presented) The method according to claim 62, comprising the further steps of:

adhering a thin flexible heel strap extending from said sole member of said device to an outer skin tissue on a back or a side of a heel of a foot to provide a further means for maintaining said sole member in adhesive engagement with a sole of a foot.

66. (Amended) The method according to claim 62, wherein

said sole engaging surface is sized and shaped to engage the outer skin tissue on a portion of the sole of a foot and to extend from a heel of a foot to about a ball portion of a foot, and comprising the further steps of:

adhering opposed ends of a thin flexible strap extending laterally outward from opposite sides of said stretch-resistant sole member to the outer skin tissue on a side or a top of a foot to provide a further means for maintaining said sole member in engagement with a sole of a foot; and wherein said device is used for, ~~or intended to be used for~~, the treatment or prevention of plantar fasciitis.

67. (Previously Presented) The device according to claim 56, wherein

said stretch-resistant sole member has a thickness of less than 30 mils (0.762 mm) and exhibits less than 15% elongation when subjected to a tensile load (lb/in-width) approximately equivalent to 25 pounds/inch in accordance with ASTM D3759.

68. (Previously Presented) The device according to claim 61, wherein said stretch-resistant sole member is comprised of a single layer of fabric with an adhesive layer wherein said fabric has a thickness of less than 30 mils (0.762 mm).

69. (Previously Presented) The method according to claim 62, comprising the further steps of: removing at least one protective cover removeably disposed over said adhesive layer which, when removed, exposes said adhesive layer, and wherein said sole member is of a substantially uniform thickness of less than less than 30 mils (0.762 mm) and exhibits less than 15% elongation when subjected to a tensile load (lb/in-width) approximately equivalent to 25 pounds/inch in accordance with the test methods of ASTM D3759.

70. (Previously Presented) An orthotic foot support device for reducing stress on the plantar fascia of a wearer's foot, said device comprising:

a stretch resistant, uniform thickness sole support, having a shape matching less than an entire outline of a sole of an individual's foot where the device is to be applied;

an adhesive layer on said sole support for attaching said sole support to a sole of the wearer's foot such that said sole support absorbs tensile stress thus preventing extension and

stretching of tissue on a bottom of the wearer's foot on which a said sole support is attached, whereby preventing excessive tensile stress in a plantar fascia.

71. (Previously Presented) The device of claim 70, wherein said device, further comprises:

- a protective cover layer detachably disposed on said adhesive layer,
- a strap to be affixed to a foot generally transversely to said sole support;
- an adhesive layer on said strap for adhering said strap to an outer skin surface of a top of the foot;
- a protective cover layer detachably disposed on said strap.

72. (Previously Presented) The device of claim 70 wherein said sole support has a size less than the size of an entire sole of a wearers' foot, and wherein said sole support has a ratio of elongation (%) to tensile strength (lb/in-width) that is less than 0.9 to provide a balanced combination of strength and resistance to elongation.

73. (Previously Presented) The device of claim 72 wherein said sole support includes a woven micro-fiber layer.

74. (Previously Presented) The device of claim 72 wherein said sole support is less than 30 mils (.762mm) thick, whereby being thin enough to be worn inside socks or shoes.

75. (Previously Presented) An orthotic foot support device for reducing stress on the plantar fascia of a wearer's foot, said device comprising:
a thin flexible stretch resistant, sole support, shaped to cover only a portion the sole of a wearer's foot on which the device is to be applied; and wherein said sole support does not include a resilient cushion layer; and wherein said sole support has a ration of elongation (%) to tensile strength (lb/in-width) that is less than 0.9 providing a balanced combination of strength and resistance to elongation;
an adhesive layer on said sole support for attaching said sole support to a sole of the wearer's foot so that extension and stretching of tissue on a bottom of the wearer's foot is restricted, whereby preventing excessive tensile stress in a plantar fascia.

76. (Previously Presented) The device of claim 75, wherein said device, further comprises; a protective cover layer detachably disposed on said adhesive layer, a strap to be affixed to the wearer's foot with an end extending outwardly from said sole support; an adhesive layer on said strap for adhering said strap to an outer skin surface of the wearer's foot; a protective cover layer detachably disposed on said strap.

77. (Previously Presented) The device of claims 75 wherein said sole support includes a woven fabric layer which exhibits less than 15 percent elongation when subjected to a 25 lb tensile load under test conditions specified in ASTM D3759, wherein said device includes a protective cover removeably disposed on said adhesive layer and wherein said device is to be used in the treatment of plantar fasciitis or in the prevention of excessive tensile stress in a plantar fasciitis.

78. (Previously Presented) A plantar fascia support device for a human foot comprising: a uniform thickness, sole support, shaped to cover only a portion of a bottom of a wearer's foot where the device is to be applied, wherein said sole support has a ratio of elongation to tensile strength (lb/in-width) that is less than 0.9 to provide a balanced combination of strength and resistance to elongation; an adhesive layer on said sole support for securely adhering said sole support to an outer skin of a sole of the wearer's foot.

79. (Previously Presented) The device of claims 78 wherein said sole support is comprised of a single non-resilient support layer, a uniformly applied adhesive layer and a protective cover layer detachably disposed on said adhesive layer; and wherein said sole support exhibits less than 15 percent elongation when subjected to a 25 lb tensile load under test conditions equivalent to those specified in ASTM D3759.

80. (Previously Presented) The device of claim 78, wherein said device, further comprises;

a protective cover layer detachably disposed on said adhesive layer,
a strap to be affixed to a wearer's foot generally transversely to said sole support;
an adhesive layer on said strap for adhering said strap to an outer skin surface of a top or a side
of the wearer's foot;
a protective cover layer detachably disposed on said strap.